

Application No. 10/776,727

No. 5000-1-521

**IN THE ABSTRACT***Please amend the Abstract as follows:*

A method for upstream traffic control in an Ethernet-based passive optical network, adapted for preventing that prevents a penalty phenomenon occurring in making upstream data transfer on the basis of a High Priority First Allocation (HPFA) algorithm. The method includes the steps of It is determined~~determining~~ whether there are any data frames to transfer in the first buffer (B1); if it is determined that there are any data frames to transfer in the first buffer, and ~~determining whether the data frame does not exceed a low water mark (M) indicative of a reference value set up to ensure the minimum transfer traffic; if it is determined that the data frame in the first buffer does not exceed the low water mark, If M is not exceeded, then transferring the data frame stored in the first buffer~~ B1 is transferred and it is determined~~whether the data frame in a second buffer B2 does not exceed M, the low water mark; if it is determined that the data frame in the second buffer does not exceed the low water mark, then If M is not exceeded, it is determined~~~~determining~~ whether the data frame to transfer in a third buffer B3 does not exceed the low water mark does not exceed M; if it is determined that the data frame to transfer in the third buffer does not exceed the low water mark, then transferring the The respective data frame stored in the second and third buffers B2 and B3 is transferred when the data frame in B3 does not exceed M.